

## REMARKS

As of the 20 June 2008 *Office Action*, Claims 17-32 are pending in the *Application*. In the *Office Action*, the Examiner rejects Claims 17-32. Applicant thanks the Examiner with appreciation for the careful examination given to the *Application*.

Applicant submits this *Response* solely to facilitate prosecution. As such, Applicant reserves the right to present new or additional claims in this *Application* that have similar or broader scope as originally filed. Applicant also reserves the right to present additional claims in a later-filed continuation application that have similar or broader scope as originally filed. Accordingly, any amendment, argument, or claim cancellation is not to be construed as abandonment or disclaimer of subject matter.

After entry of this *Response*, Claims 17-32 are pending in the *Application*. Applicant respectfully submits that the pending claims are in condition for allowance over the references of record, and respectfully requests reconsideration of the claims in light of this submission. Applicant, accordingly, believes that the *Application* is allowable for the following reasons.

### **I. Objection to the Drawings**

In the *Office Action*, the drawings are objected to as the Examiner alleges that certain features of the Claims are not present in the drawings, namely, a single sheet of flexible buoyant or semi-buoyant material, at least one pump and drogue anchors.

It is respectfully submitted that the *Replacement Sheet* of **Fig. 5** submitted in Applicant's 14 December 2007 *Response and Amendment* in this case overcomes this objection as to the drogue anchors.

It is respectfully submitted that the single sheet of flexible buoyant or semi-buoyant material is apparent in **Figs. 2** and **6** (top surface of the apparatus). Nonetheless, **Fig. 2** is amended to refer to the single sheet as **S**.

**Fig. 2** has been further amended to illustrate a pump **P** shown schematically on barge **14** in **Fig. 2**.

Applicant respectfully submits that **Fig. 2** in the *Replacement Sheet* does not add new matter to the *Application*. Support for the single sheet of flexible buoyant or semi-buoyant material now referenced in **Fig. 2** can be found at least in original Claim 19 and ¶[0021] of the

*Specification* as published, and support for the pump now referenced in **Fig. 2** can be found at least in original Claim 23 and ¶[0023] of the *Specification* as published.

## **II. Rejections under 35 U.S.C. §103**

In the *Office Action*, Claims 17-18, 20-25, 27-30 are rejected under 35 U.S.C. § 103(a) as allegedly being unpatentable over US Patent No. 6,745,714 to Faber in view of US Patent No. 5,860,379 to Moody. In the *Office Action*, Claim 19 is rejected under 35 U.S.C. § 103(a) as allegedly being unpatentable over Faber in view of Moody, and further in view of JP 06002317 to Hayashi. In the *Office Action*, Claim 26 is rejected under 35 U.S.C. § 103(a) as allegedly being unpatentable over Faber in view of Moody, and further in view of US Patent No. 6,592,416 to Hochschild II. In the *Office Action*, Claims 31-32 are rejected under 35 U.S.C. § 103(a) as allegedly being unpatentable over US Patent No. 3,608,316 to Manuel, in view of Faber and Moody. Applicant respectfully submits that the combination of cited references fails to disclose each and every claimed feature.

Faber does not a deployable apparatus for creating a local reduction in wave height, and one of skill in the art would look to Faber to design an apparatus for reducing wave height.

Faber relates to a “dry dock” for raising a relatively small boat out the water. The device of Faber has of a series of adjacent joined cuboidal floatation cells **12** on which the boat rests when raised out of the water. At the underside of the cells **12** a single row or “beam” of cells **14** is provided. These are apparently similar to the cells **12**, but the cells **14** are turned through 90° with respect to the cells **12**. The cells **14** are provided with a manifold for pumping air into the cells and a discharge port through which water can be ejected from the cells (by air pressure) to adjust the buoyancy of the beam. All the cells are rigid. The cells **14** include inlet risers **32** depending from the manifold. The particular construction and placement of these risers within the cells **14** is key to the invention disclosed in Faber. That is, the risers must extend upwardly from the lower aft corners of the cells **14** to the upper forward corners (*Col. 2, Lines 60-62*).

Faber teaches the skilled person nothing about how a reduction in wave height might be achieved. Faber is solely concerned with raising relatively small boats in a harbor environment, which, as is understood by a fair understanding of Faber, occurs in perfectly calm waters. There is nothing in the design of the Faber apparatus that would suggest that it has the mechanical strength to be used to reduce waves, for example, in an offshore environment where the wind and

wave forces are of orders of magnitude greater than in a quiet harbor. This is relevant to the consideration of the beam of cells **14** as a drag inducing element.

Inasmuch as the beam of Faber might have some effect in reducing wave height, it would do so by reflecting or deflecting waves incident on the surface of the beam. This is precisely the sort of construction which the apparatus of the invention seeks to avoid – note ¶[0016] of the *Specification* as published. To have any meaningful effect in reducing wave height, the beam of cells **14** would have to be mechanically very strong to resist the forces imposed on the beam by the waves. There is no indication in Faber that the beam of cells **14** has such strength. It is thus respectfully submitted that Faber is silent to the disclosure of an apparatus for reducing wave height, and one of skill in the art when looking to design an apparatus for reducing wave height would not look at, and would not gain any useful information from, Faber.

Faber is combined with Moody allegedly in order to show that the drag inducing elements are collapsible or compressible. Moody also teaches a boat lift for small boat, for use in a calm harbor. The lift essentially comprises three air bladders that can be arranged under the boat and then inflated to raise the boat out of the water. Again, Moody teaches the skilled person nothing about how a reduction in wave height might be achieved. It is true that the apparatus of Moody is collapsible, in the sense that it can be deflated. However, there would be no motivation to one of skill in the art who is designing an apparatus for reducing wave height to add the collapsible boat lift of Moody to the existing boat lift of Faber.

Why would the skilled person envisage that adding the collapsible boat lift of Moody to the Faber boat lift would result in an apparatus effective in reducing wave height, for example, offshore? More basically, the Faber apparatus is a coherent and effective design of boat lift and it is not clear what advantage the skilled person would hope to attain by modifying the Faber apparatus by adding the inflatable boat lift of Moody. It is alleged that this would be to enhance storage, but since none of the other elements of the Faber design are collapsible compressible, foldable or otherwise reducible in size for storage this would seem, respectfully, irrelevant, if not taught against.

It is respectfully submitted that Claim 17 is patentable over the cited references, as the combination as proposed in the *Office Action*, in material respects, teaches away from the claimed invention by disclosing a combination that is not collapsible or compressible when not

in use. *In re Geisler*, 116 F.3d 1465, 1471, 43 USPQ2d 1362, 1366 (Fed. Cir. 1997). Further, to modify Faber to be storable would render it unsatisfactory for its intended purpose, and thus there is no suggestion or motivation to make the proposed modifications. *In re Gordon*, 733 F.2d 900, 221 USPQ 1125 (Fed. Cir. 1984).

Claim 19 is further patentable, as Hayashi does not teach a single sheet of flexible buoyant or semi-buoyant material as alleged in the *Office Action*. An English translation of Hayashi is attached. See, for example, ¶¶[0012] to [0014]. There is no indication that the “base portion 1” is itself buoyant. Buoyancy is provided by the underlying floating body 2.

Claim 26 is rejected as obvious over Faber in view of Moody and further in view of Hochschild II. Hochschild II related to a naval gunnery target that happens to include a drogue anchor. It is not clear why a skilled person seeking to produce an apparatus as recited in Claim 26 for reducing wave height would look to Hochschild II and, if they did, there is nothing in Hochschild II that would teach or suggest that a *plurality* of drogue anchors might be useful in an apparatus for reducing wave height. The drogue anchor of Hochschild II is provided for an entirely different purpose, namely stabilization of the target.

Thus, Applicant respectfully submits that Claims 17-32 are patentable over the cited references, and are in condition for allowance. Manuel does not cure the deficiencies of the other cited art used against Claim 17, to maintain the rejection of Claims 32-33. New Claims 33-34 are also believed to be in condition for allowance at least due to their ultimate dependence upon Claim 17, as discussed below.

### **III. Newly Presented Claims**

New Claim 33 is presented, and is further distinguishable from the cited art, as the recited apparatus expressly must have the strength for creating a local reduction in wave height when temporarily deployed in an offshore environment, wherein such an environment is not a quite harbor. Support for this new Claim can be found, for example in ¶[0036] of the *Specification* as published.

New Claim 34 is presented, and is further distinguishable from the cited art. Support for this new Claim can be found, for example in ¶[0036] of the *Specification* as published.

#### **IV. Fees**

This *Response* is filed within six months of the *Final Office Action*, and a three month extension of time fee is believed due. This *Response* adds two Claims, but the total number of Claims remains paid for upon original filing, and thus no claim fees are believed due. The Commissioner is expressly authorized, however, to charge any fees that may be required to Deposit Account No. 20-1507.

## CONCLUSION

By the present *Response*, this Application has been placed in full condition for allowance. Accordingly, Applicant respectfully requests early and favorable action. Should the Examiner have any further questions or reservations, the Examiner is invited to telephone the undersigned Attorney at 404.885.2773.

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